Metallized Polypropylene Film Capacitor
Related Document: IEC 60384-16

MAIN APPLICATIONS
Oscillator, timing and LC/RC filter circuits, high frequency coupling/decoupling, sample and hold circuits.

MARKING
Manufacturer’s logo/type/C-value/rated voltage/tolerance/ date of manufacture

DIELECTRIC
Polypropylene film

ELECTRODES
Vacuum deposited aluminum

COATING
Flame retardant plastic case (UL-class 94 V-0), blue, epoxy resin sealed

CONSTRUCTION
Extended metallized film (refer to general information)

LEADS
Tinned wire

IEC TEST CLASSIFICATION
55/100/56, according to IEC 60068

OPERATING TEMPERATURE RANGE
- 55°C to + 100°C

CAPACITANCE RANGE
0.01µF to 0.1µF

CAPACITANCE DRIFT
Up to + 40°C, < 0.5% for a period of two years

FEATURES
Product is completely lead (Pb)-free
Product is RoHS-compliant

CAPACITANCE TOLERANCES
± 10% (K), ± 5% (J), ± 2.5% (H), ± 1% (F)

RATED VOLTAGES (U_R)
160 VDC

PERMISSIBLE AC VOLTAGES (RMS) UP TO 60HZ
100 VAC

TEST VOLTAGE (ELECTRODE/ELECTRODE)
1.6 x U_R for 2 s

INSULATION RESISTANCE
Measured at 100 VDC after one minute
100,000 MΩ minimum value

TEMPERATURE COEFFICIENT
- 250°C x 10^{-6}/°C (typical value)

MAXIMUM PULSE RISE TIME
dv/dt = 390 V/µs
If the maximum pulse voltage is less than the rated voltage, higher dv/dt values can be permitted.

DERATING FOR DC AND AC.CATEGORY VOLTAGE U_C
At + 85°C: U_C = 1.0 U_R
At + 100°C: U_C = 0.7 U_R

SELF INDUCTANCE
~ 6 nH measured with 2mm long leads

PULL TEST ON LEADS
≥ 30 N in direction of leads according to IEC 60068-2-21

DIELECTRIC ABSORPTION
0.05% (typical value) acc. to IEC 60384-1

RELIABILITY
Operational life > 300,000 h
Failure rate < 5 FIT (40°C and 0.5 x U_R)

For further details, please refer to the general information available at www.vishay.com/doc?26033.
MKP 1837
Vishay Roederstein Metallized Polypropylene Film Capacitor
Related Document: IEC 60384-16

## CAPACITANCE, CAPACITANCE CODE, VOLTAGE CODE 160 VDC/100 VAC

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Further C-values upon request

## RECOMMENDED PACKAGING

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<th>LETTER CODE</th>
<th>TYPE OF PACKAGING</th>
<th>HEIGHT (H) (mm)</th>
<th>REEL DIAMETER (mm)</th>
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Permissible AC Voltage versus Frequency

Impedance versus Frequency $Z = f(f)$ (Lead length 2.0mm)
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